**K-5 Math Lesson Plan**

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| **Teacher:** | | | **Grade:2** | | | **Date(s)**: Day 1 |
| **Unit Title:** Unit 1-Understanding place value | | | | **Corresponding Unit Task:** 3 | | |
| **Essential Question(s):** How do I compose numbers up to 1,000?  How do I know the value of a number? | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher:**  Number line 1-100  Cards with numbers and matching number word for Number/Word match | | **Student:**  Base ten blocks  Note cards  Number line master  [http://www.nationalstemcentre.org.uk/elibrary/file/5437/Maths\_Y1\_Spr\_TS1.pdf](https://webmail.gcsnc.com/owa/redir.aspx?C=335d87328293401dbaf4d14dafb02780&URL=http%3a%2f%2fwww.nationalstemcentre.org.uk%2felibrary%2ffile%2f5437%2fMaths_Y1_Spr_TS1.pdf) | | | Number line  Compare  Greater than, less than, equal | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics.  5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:** 2.NBT.1 2.NBT.2 2.NBT.3 2.NBT.4 | | | | | |
| **I Can Statement(s):** I can build numbers to 100 using base 10 blocks.  I can build a number line to 100. | | | | | |
| **Activating Strategy/Hook:** (How will students become cognitively engaged and focused?)  Number/Word match-partners find each other, represent their number two ways using various tools (base ten, draw picture, number sentence), and share with class | | | | | |
| **Teacher Directed:** What is a number line? Teacher will show number line and model the various increments that can be represented on a number line. | | | | | |
| **Guided Practice:** Model putting a number on the number line, have partners put their numbers from number/word match on the number line. Teacher helps compare using greater than, less than, equal to vocabulary and models number sentence with symbols. | | | | | |
| **Independent Practice:** Students use individual number line to place numbers given by teacher | | | | | |
| **Closing/Summarizing Strategy:** Choose several students to “teach” the class where and why they place teacher given numbers | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
| Create number line using various increments (2, 5, 10) | | | Work with partner groups on additional numbers on class number line as needed | | |  |
| **Assessment(s):** teacher observation during independent practice | | | | | | |
| **Teacher Reflection:** (Next steps?) | | | | | | |

**K-5 Math Lesson Plan**

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| --- | --- | --- | --- | --- | --- | --- |
| **Teacher:** | | | **Grade:** 2 | | | **Date(s)**: Day 2 |
| **Unit Title:** Unit 1-Understanding Place Value | | | | **Corresponding Unit Task:** 3 | | |
| **Essential Question(s):** | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher:**  number line 1-1,000 using 10 sentence strips | | **Student:**  Sentence strips  Paper 100 flats  glue | | | Number line  100 more  100 less | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics.  5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:**  2.NBT.1 2.NBT.2 2.NBT.3 2.NBT.4 | | | | | |
| **I Can Statement(s):** I can build a number line to 1,000 by 100s.  I can move forward and backward on a number line in increments of 100. | | | | | |
| **Activating Strategy/Hook:** (How will students become cognitively engaged and focused?)  Jumping jacks, toe touches, arm circles by 100 to 1,000 | | | | | |
| **Teacher Directed:** Review yesterday’s number line to 100, expand number line 1,000  Teacher poses question-what increments could I use to label the number line  Lead students to increments of 100 and discuss why increments of 100 are more efficient than increments of 1, 2, 5, or 10 | | | | | |
| **Guided Practice:** Discuss where 500 would go and why, label 500 on the number line, students help place the remaining increments of 100 using the vocabulary 100 more and 100 less | | | | | |
| **Independent Practice:** Students create their own number line 1-1,000 using sentence strips and paper hundreds flats | | | | | |
| **Closing/Summarizing Strategy:** Students explain how they created their number line to their table group, one representative shares with the class | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
| Using student number line students will show how each hundred equals 10 tens up to 1,000 (crayons, pencil x’s, etc) | | | Modify independent practice to create a number line to 100 using tens  (cut apart paper 100 flats) | | |  |
| **Assessment(s):** Student number lines and student oral sharing how they created number lines | | | | | | |
| **Teacher Reflection:** (Next steps?) | | | | | | |

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| **Teacher:** | | | **Grade:** 2 | | | **Date(s)**: Day 3 |
| **Unit Title:** Unit 1-Understanding Place Value | | | | **Corresponding Unit Task:** 3 | | |
| **Essential Question(s):** | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher:**  Number line 1-1000 from lesson 2  2 Sentence strip number line segments 300-400 and 0 to 100  ruler | | **Student:**  Sentence stips  Rulers  Pencils  markers | | | Line segment | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics.  5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:** 2.NBT.1 2.NBT.2 2.NBT.3 2.NBT.4 | | | | | |
| **I Can Statement(s):** I can place numbers on a segment of a number line.  I can compare numbers on a line segment. | | | | | |
| **Activating Strategy/Hook:** (How will students become cognitively engaged and focused?)  Teacher will pose the question-have you ever used binoculars? Let students use binoculars and discuss how binoculars zoom in to see something. Have students “zoom in” to a segment from yesterday’s 1-1,000 number line (300-400). | | | | | |
| **Teacher Directed:** Model/show line segment 300-400 (use arrows to show that the line would continue), teacher labels the segment in increments of 10 showing students strategies to make the increments equal (folding or use ruler). | | | | | |
| **Guided Practice:** Repeat teacher directed with help from students using line segment 0-100 | | | | | |
| **Independent Practice:** Partners create line segments assigned by teacher in increments of 10 | | | | | |
| **Closing/Summarizing Strategy:** Put student made line segments together to create a 0-1,000 number line and compare to yesterday’s teacher created number line which is in increments of 100. As a class use the number line to count to 1,000 by 10. | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
| Build numbers from line segments using only 10’s and ones blocks | | | Modify the number line segment where teacher provides some of the increments | | |  |
| **Assessment(s):** Student created line segments and oral discussion | | | | | | |
| **Teacher Reflection:** (Next steps?) | | | | | | |

**K-5 Math Lesson Plan**

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| **Teacher:** | | | **Grade:** 2 | | | **Date(s)**: Day 4 |
| **Unit Title:** Unit 1-Understanding Place Value | | | | **Corresponding Unit Task:** 3 | | |
| **Essential Question(s):** | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher:**  Teacher created 0-1,000 number line  Student created 0-1,000 number line | | **Student:**  Dice  Number line master  Base ten blocks | | | Compare  Greater than  Less than  Equal | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics.  5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:** 2.NBT.1 2.NBT.2 2.NBT.3 2.NBT.4 | | | | | |
| **I Can Statement(s)** I can build numbers to 1,000 using base ten blocks.  I can put numbers on a number line to 1,000.  I can compare numbers using the < or >. | | | | | |
| **Activating Strategy/Hook:** (How will students become cognitively engaged and focused?)  Teacher puts students in groups of 3, assign students a place value (hundreds, tens, ones), teacher calls out numbers, groups build given number using base ten blocks (each student only builds with their assigned place value, ex. Student assigned ones should only use ones to help group build given number) | | | | | |
| **Teacher Directed:** Teacher models building a three digit number and placing that number on both teacher and student created number lines. Repeat-build and place another 3 digit number. Compare the 2 numbers using greater than, less than vocabulary. Model how to compare the 2 numbers using greater than, less than symbols. | | | | | |
| **Guided Practice:** Teacher introduces dice, lets two students roll the dice to produce 2 three digit numbers. Allow 2 other students to build those numbers using base ten blocks, next 2 other students place the numbers on the class number line, last 2 other students verbally compare the 2 numbers using greater than, less than vocabulary. Repeat with new students | | | | | |
| **Independent Practice:** In partners, use dice to roll for 2 three digit numbers, and plot on number line master. Students will roll and plot for 10 number lines | | | | | |
| **Closing/Summarizing Strategy:** Each partner group chooses one number line and verbally compares using greater than, less than to the class | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
| Order all numbers from all number lines from greatest to least and least to greatest | | | Build and compare only numbers from 1-100 | | |  |
| **Assessment(s):** Oral presentations | | | | | | |
| **Teacher Reflection:** (Next steps?) | | | | | | |

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| **Teacher:** | | | **Grade:** 2 | | | **Date(s)**: Day 5 |
| **Unit Title:** Unit 1-Understanding Place Value | | | | **Corresponding Unit Task:** 3 | | |
| **Essential Question(s):** | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher:**  Number line 1-100 | | **Student:**  Base ten blocks  Hundreds board  What I have/What I need chart | | | Skip count  Count up  Count on | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics.  5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:** 2.NBT.1 2.NBT.2 2.NBT.3 2.NBT.4 | | | | | |
| **I Can Statement(s):**  I can count on to determine how many more I need to get to 100.  I can compare two numbers using < or > symbols. | | | | | |
| **Activating Strategy/Hook:** (How will students become cognitively engaged and focused?)  Teacher poses challenge: I have 57 pencils, I know I need 100. How could you use base ten blocks to get from 57 to 100? Table groups think, discuss, and solve. One representative from each table group should report out. Teacher facilitates discussion about strategies used and which strategies were more efficient. | | | | | |
| **Teacher Directed:**  Teacher will model using base ten blocks and a think aloud how to determine the quantity needed to get from 57 to 100 is 43. Teacher will create a chart to record “what I have” (57) and “what I need” (43). Using greater than, less than vocabulary and symbols teacher will model how to compare “what I have” to “what I need”. Teacher will model several examples using both base ten blocks and a hundreds board. | | | | | |
| **Guided Practice:** Students will work with a partner to practice getting to 100 from a given number, determining the “what I have” and “what I need” numbers for their chart and comparing the numbers. Students will continue to use base ten blocks and hundreds boards to assist them. | | | | | |
| **Independent Practice:** Teacher will pose word problem (there are 100 second graders, the teacher wants to give all the students a sticker. She has 48 stickers. How many more does she need? Compare how many she has with how many she needs.) Students will choose either base ten blocks or a hundreds board to independently solve the problem in their math journal. | | | | | |
| **Closing/Summarizing Strategy** Students will share their solutions and strategies with a table partner. Teacher will choose several students to share their solutions and strategies with the class. | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
| Skip count by 10’s, 2’s, and 1’s  Can use a number line as an additional tool | | | Only give numbers that are multiples of 10 | | |  |
| **Assessment(s):**  Journal entry | | | | | | |
| **Teacher Reflection:** (Next steps?) | | | | | | |

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| **Teacher:** | | | **Grade:** 2 | | | **Date(s)**: Day 6 |
| **Unit Title:** Unit 1-Understanding Place Value | | | | **Corresponding Unit Task:** 3 | | |
| **Essential Question(s):** | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher:**  Number line 1-1000 | | **Student:**  Base ten blocks  Thousands board by tens  Thousands Board Yukon website  What I have/What I need chart | | | Skip count  Count up  Count on | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics.  5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:** 2.NBT.1 2.NBT.2 2.NBT.3 2.NBT.4 | | | | | |
| **I Can Statement(s):** I can count on to determine how many more I need to get to 1000.  I can compare two numbers using < or > symbols. | | | | | |
| **Activating Strategy/Hook:** (How will students become cognitively engaged and focused?)  Teacher poses challenge: I have 550 pencils, I know I need 1000. How could you use base ten blocks to get from 550 to 1000? Table groups think, discuss, and solve. One representative from each table group should report out. Teacher facilitates discussion about strategies used and which strategies were more efficient. | | | | | |
| **Teacher Directed:**  Teacher will model using base ten blocks and a think aloud how to determine the quantity needed to get from 550 to 1000 by counting up by hundreds and tens. Teacher will create a chart to record “what I have” (550) and “what I need” (450). Using greater than, less than vocabulary and symbols teacher will model how to compare “what I have” to “what I need”. Teacher will model several examples using both base ten blocks, thousands chart by tens, and 1-1,000 number line. | | | | | |
| **Guided Practice:** Students will work with a partner to practice getting to 1000 from a given number, determining the “what I have” and “what I need” numbers for their chart and comparing the numbers. Students will continue to use base ten blocks, thousands chart, and number line to assist them. | | | | | |
| **Independent Practice:** Teacher will pose word problem (there are 1000 students at \_\_\_\_\_school; the teacher wants to give all the students a sticker. She has 480 stickers. How many more does she need? Compare how many she has with how many she needs.) Students will choose either base ten blocks, thousands chart, or a number line to independently solve the problem in their math journal. | | | | | |
| **Closing/Summarizing Strategy** Students will share their solutions and strategies with a table partner. Teacher will choose several students to share their solutions and strategies with the class. | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
| Solve problems that require using hundreds, tens, and ones. | | | Use thousands chart 1-500 by ones  Use lower numbers | | |  |
| **Assessment(s):**  Journal entry | | | | | | |
| **Teacher Reflection:** (Next steps?) | | | | | | |

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| **Teacher:** | | | **Grade:** 2 | | | **Date(s)**: Day 7 |
| **Unit Title:** Unit 1-Understanding Place Value | | | | **Corresponding Unit Task:** 3 | | |
| **Essential Question(s):** | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher:**  Classroom Inventory  Base Ten blocks  Thousands board  Number line | | **Student:**  Classroom Inventory task  Base ten blocks  Thousands board  Number line | | |  | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics.  5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:** 2.NBT.1 2.NBT.2 2.NBT.3 2.NBT.4 | | | | | |
| **I Can Statement(s):** | | | | | |
| **Activating Strategy/Hook:** (How will students become cognitively engaged and focused?)  “Tomorrow you will begin your school inventory for the school treasurer but today I want you to help me with our classroom inventory. You will use all of the tools that we have used the past 6 days to determine what we have and what we need for our classroom.” | | | | | |
| **Teacher Directed:** Teacher models how to complete the first two items on the classroom inventory. Model solving the first item using base ten blocks and number line. The second item should be modeled using base ten blocks and thousands chart. | | | | | |
| **Guided Practice:** Teacher will guide students in solving item three on the classroom inventory. Students can work with table group using base ten blocks and choose either number line or thousands chart. Guided discussion about what tools were used and how they helped solve the problem. | | | | | |
| **Independent Practice:** Students will independently solve the last two items on the classroom inventory using base ten blocks, thousands chart, and/or number line. | | | | | |
| **Closing/Summarizing Strategy:** Teacher closes with discussion about how todays work will help us with tomorrow’s school inventory. Ticket out the Door-What is your favorite tool/strategy to use? | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
| Challenge questions  -I have 427, how many more do I need to get to 600.  -I have 74, how many more do I need to get to 300? | | | Students will only complete item 4 on the classroom inventory | | |  |
| **Assessment(s):** Classroom inventory activity | | | | | | |
| **Teacher Reflection:** (Next steps?) | | | | | | |

**K-5 Math Lesson Plan**

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| **Teacher:** | | | **Grade:** 2 | | | **Date(s)**: Day 8 |
| **Unit Title:** Unit 1-Understanding Place Value | | | | **Corresponding Unit Task:** 3 | | |
| **Essential Question(s):** | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher:** | | **Student:** | | |  | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics.  5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:** 2.NBT.1 2.NBT.2 2.NBT.3 2.NBT.4 | | | | | |
| **I Can Statement(s):** | | | | | |
| **Activating Strategy/Hook:** (How will students become cognitively engaged and focused?) | | | | | |
| **Teacher Directed:** | | | | | |
| **Guided Practice:** | | | | | |
| **Independent Practice:** | | | | | |
| **Closing/Summarizing Strategy:** | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
|  | | |  | | |  |
| **Assessment(s): Inventory Investigation-Performance Task 3** | | | | | | |
| **Teacher Reflection:** (Next steps?) | | | | | | |

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Classroom Inventory

Use base-ten blocks, a number line, or a thousands chart to determine how much more you will need to buy of each item. Compare how much of each item you have in current inventory to how much more you will need to buy.

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| --- | --- | --- | --- | --- | --- |
| **Item** | **How Many You Have** | **How Many More are Needed to get to 1000?**  (Count On) | | **Show how they compare**  **\_\_\_\_\_\_ (<, >, =) \_\_\_\_\_\_**  How many? How many more? | **What did you use?** |
| Pencil 468 | | |  | | |
| Eraser 791 | | |  | | |
| Glue Stick 620 | | |  | | |
| Notebook Paper 800 | | |  | | |
| Crayons 212 | | |  | | |
|  | | |  | | |